

FIG. 1A

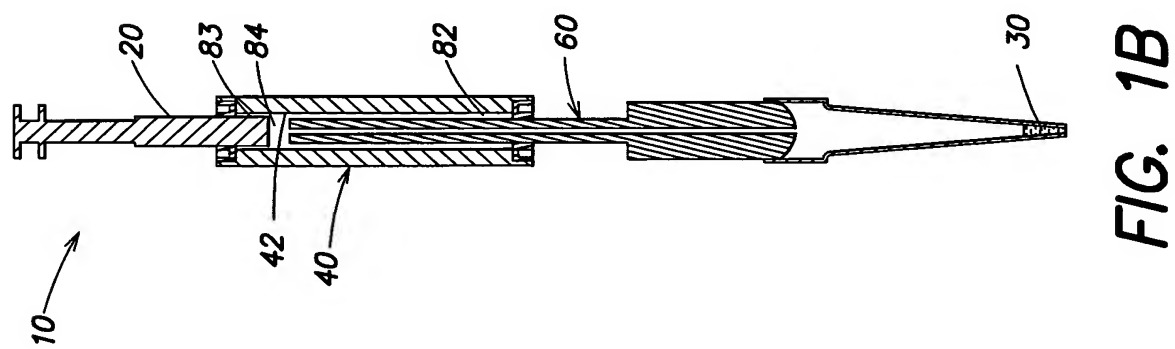


FIG. 1B

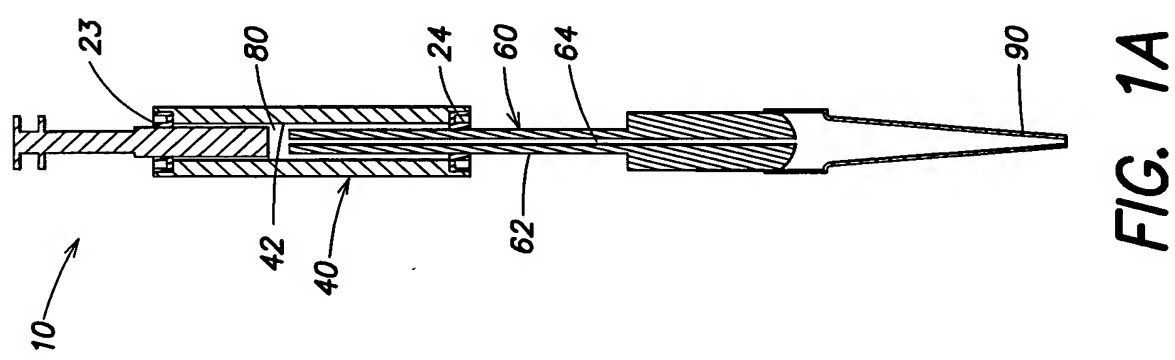
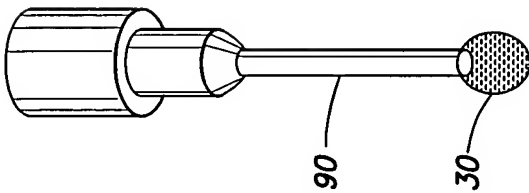
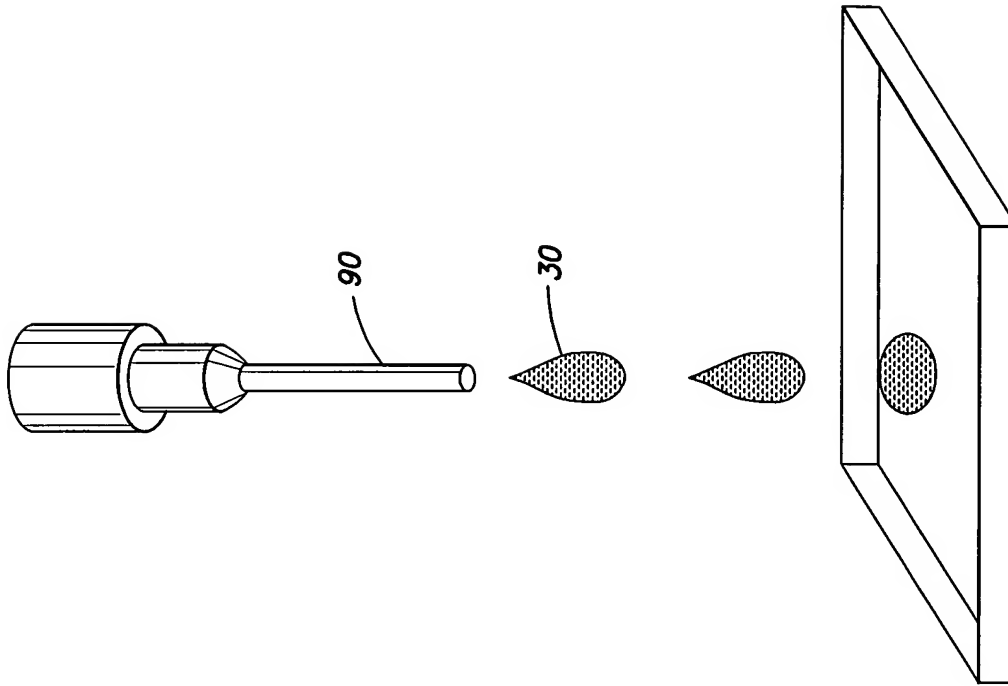


FIG. 1C

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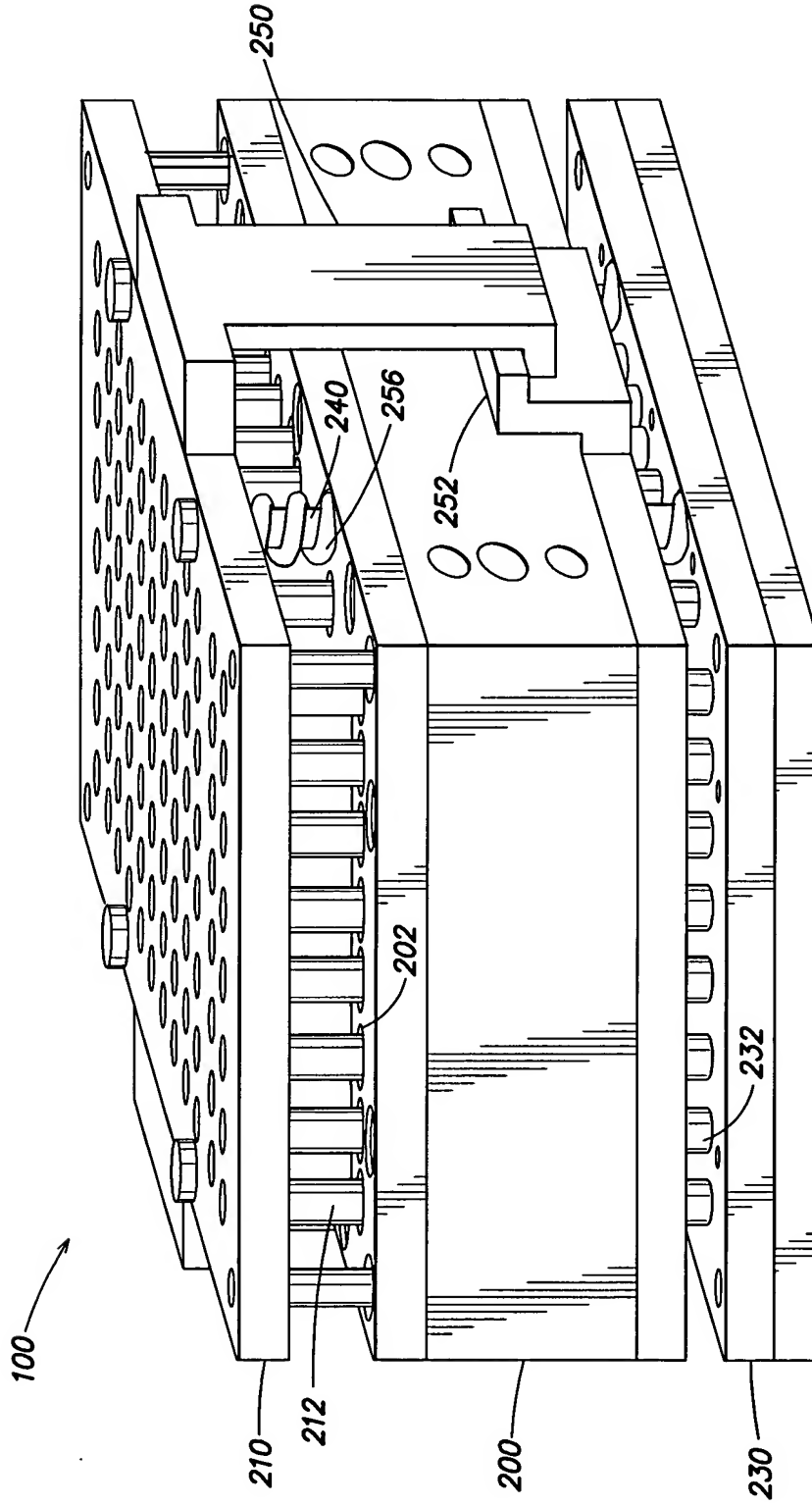


FIG. 3

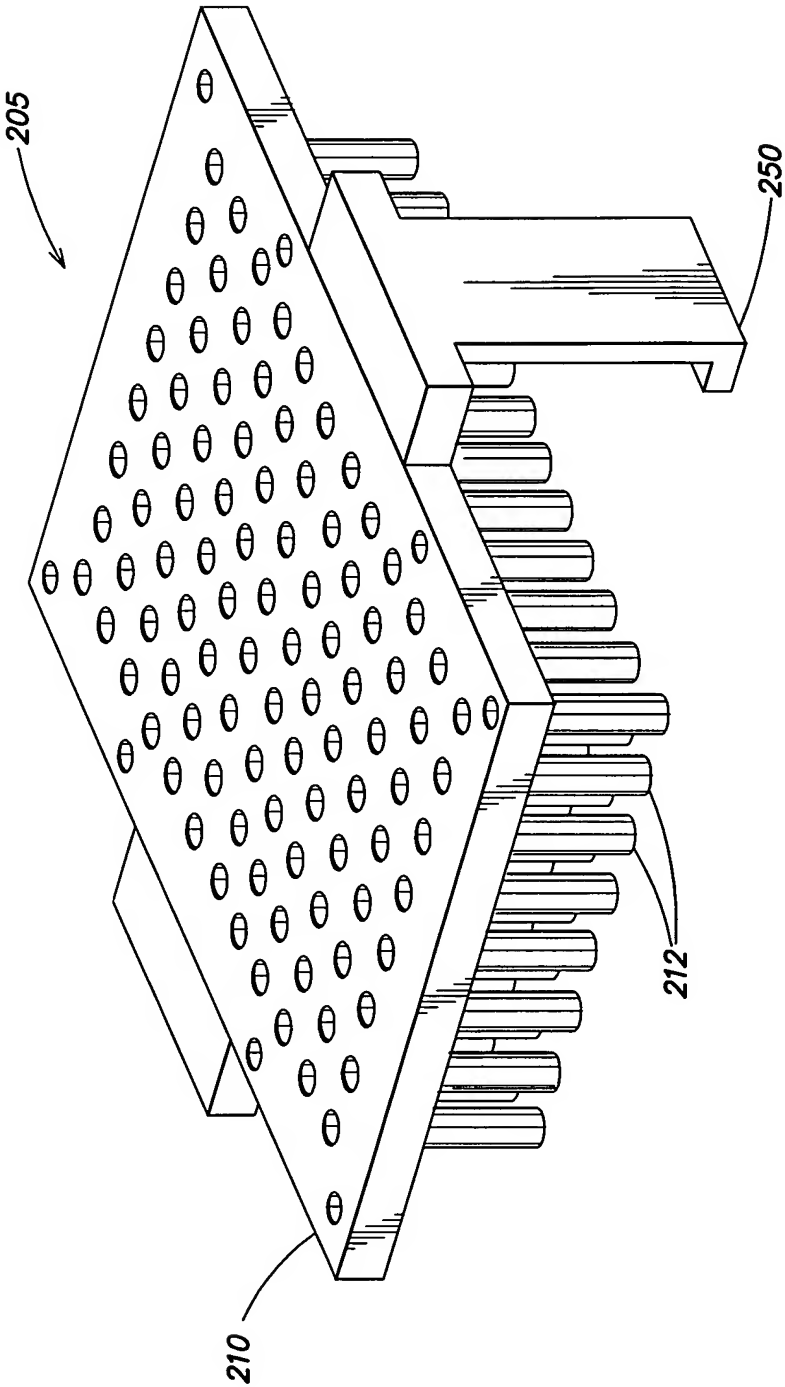


FIG. 3A

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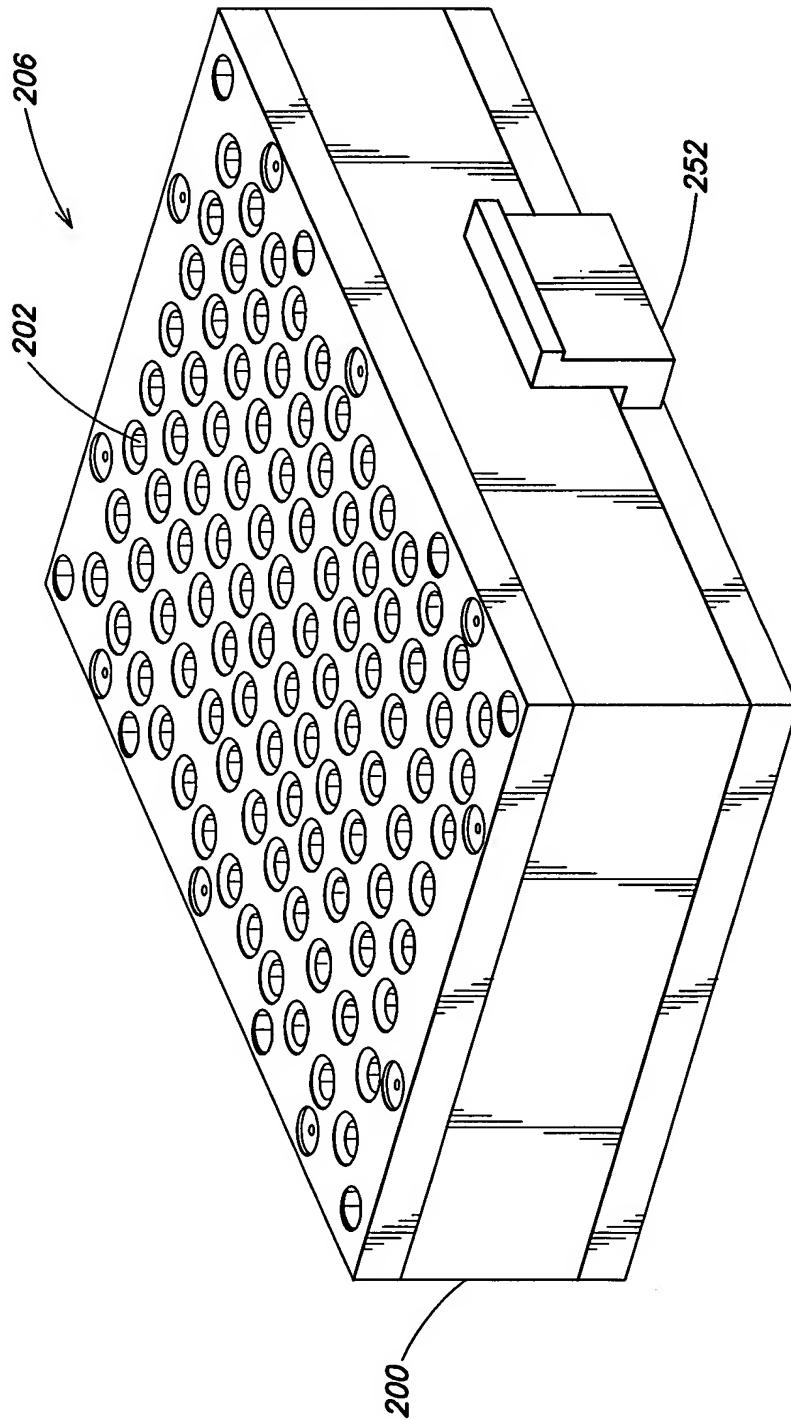


FIG. 3B

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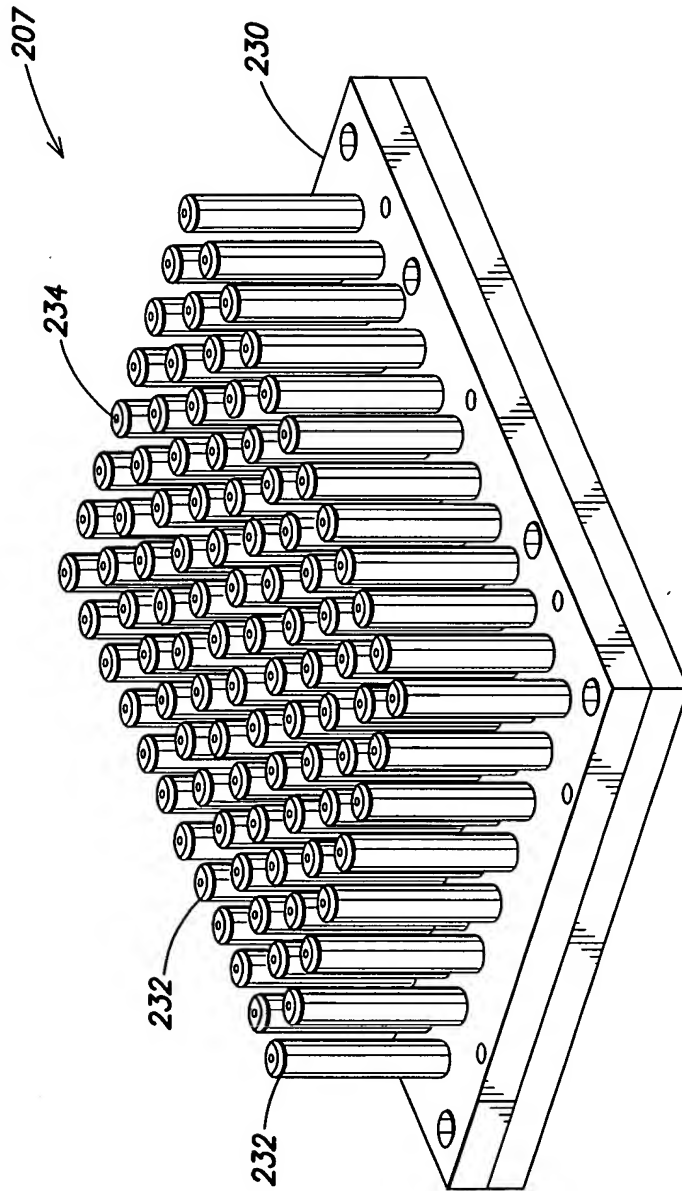


FIG. 3C

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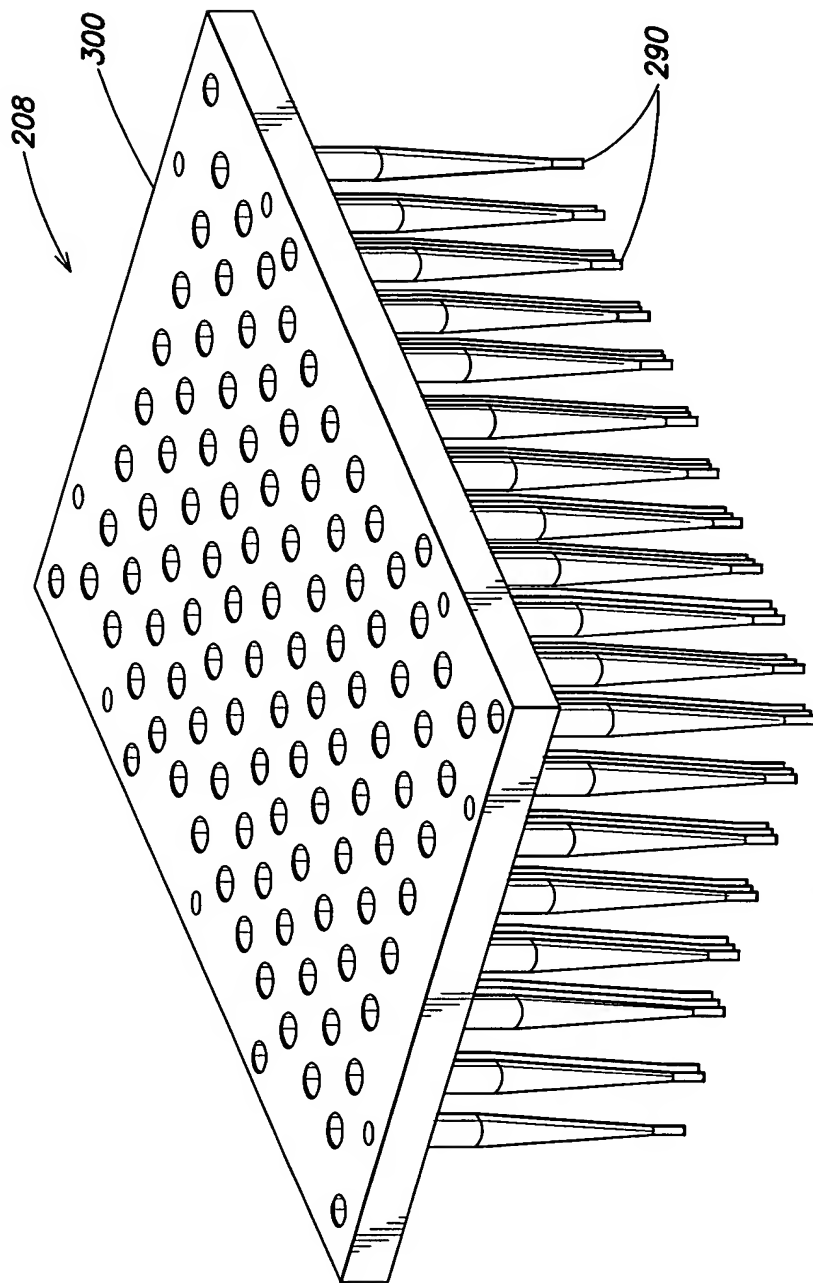


FIG. 3D

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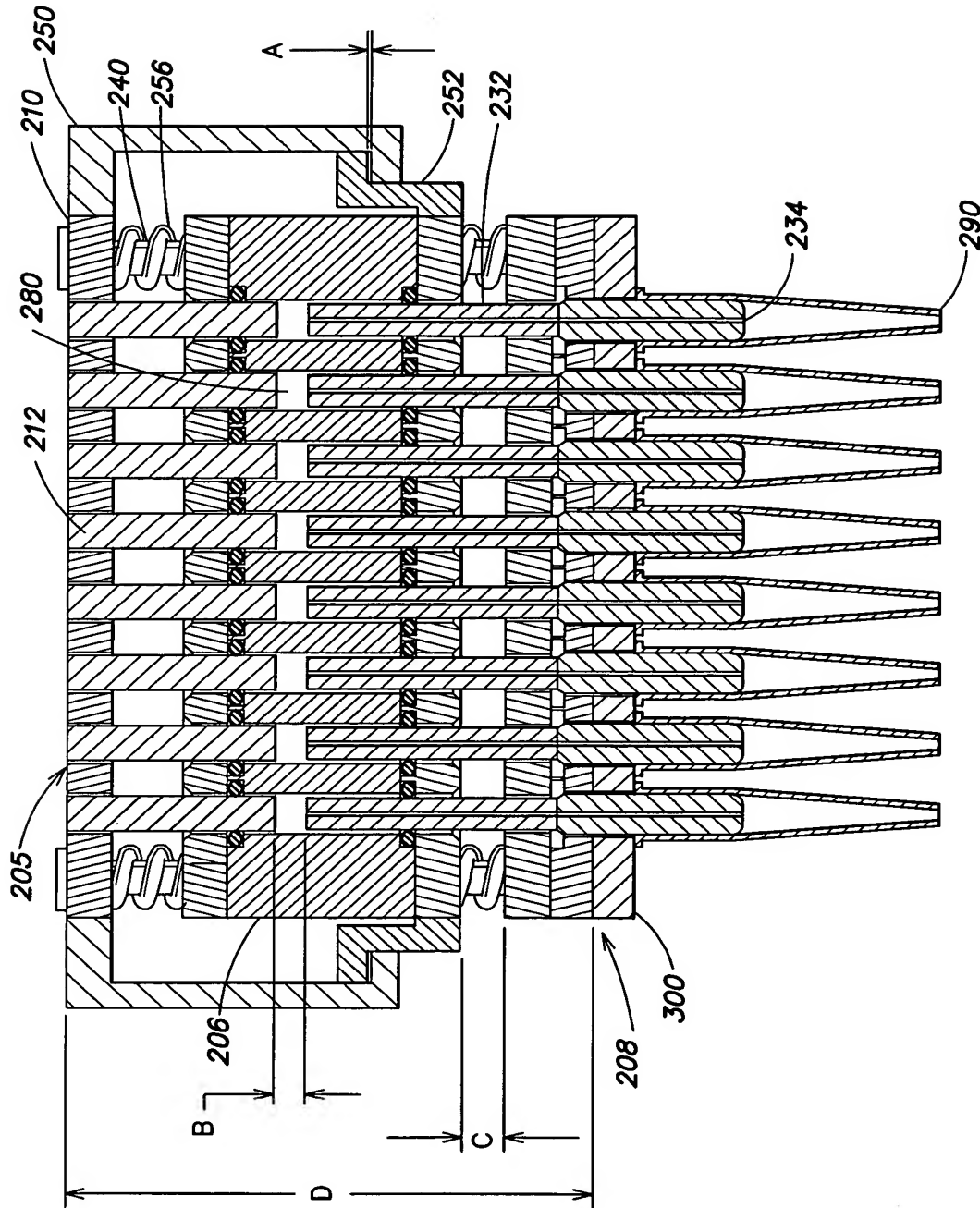


FIG. 4B

FIG. 4D

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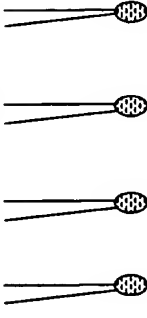
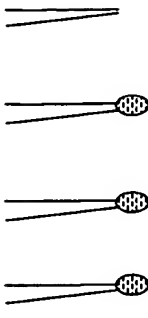


Cross Section	Diameter (Inches)	Cross Sectional Area (Square Inches)	Res (uL/ inch)	Res (mm/ uL)	Flow Max (uL/sec)	Maximum Tip Escape Velocity (meters/sec) for tip diameters (inches) 0.020 0.016 0.012 0.010
Hypothetical Fine Resolution Conventional Pipetter	0.033	0.0009	14	1.8	20	
Conventional Pipetter	0.062	0.003	50	0.51	69	
						 Hanging Drop
						 Blastoff

FIG. 5A


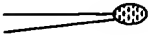
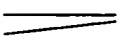


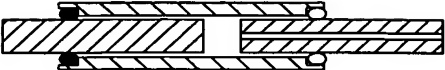



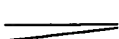
Cross Section	Diameter (Inches)	Cross Sectional Area (Square Inches)	Res (uL/ inch)	Res (mm/ uL)	Flow Max (uL/sec)	Maximum Tip Escape Velocity (meters/sec) for tip diameters (inches) 0.020 0.016 0.012 0.010
<div> <div>Conventional Pipetter</div>  </div>	0.125	0.0123	202	0.13	282	<div> <div>1.4</div>  <div>2.3</div>  <div>4</div>  <div>6</div>  </div>
<div> <div>PRESENT INVENTION</div>  </div>	0.184	0.026	454	0.062	635	<div>3</div>  <div>5</div>  <div>9</div>  <div>13</div> 

FIG. 5B

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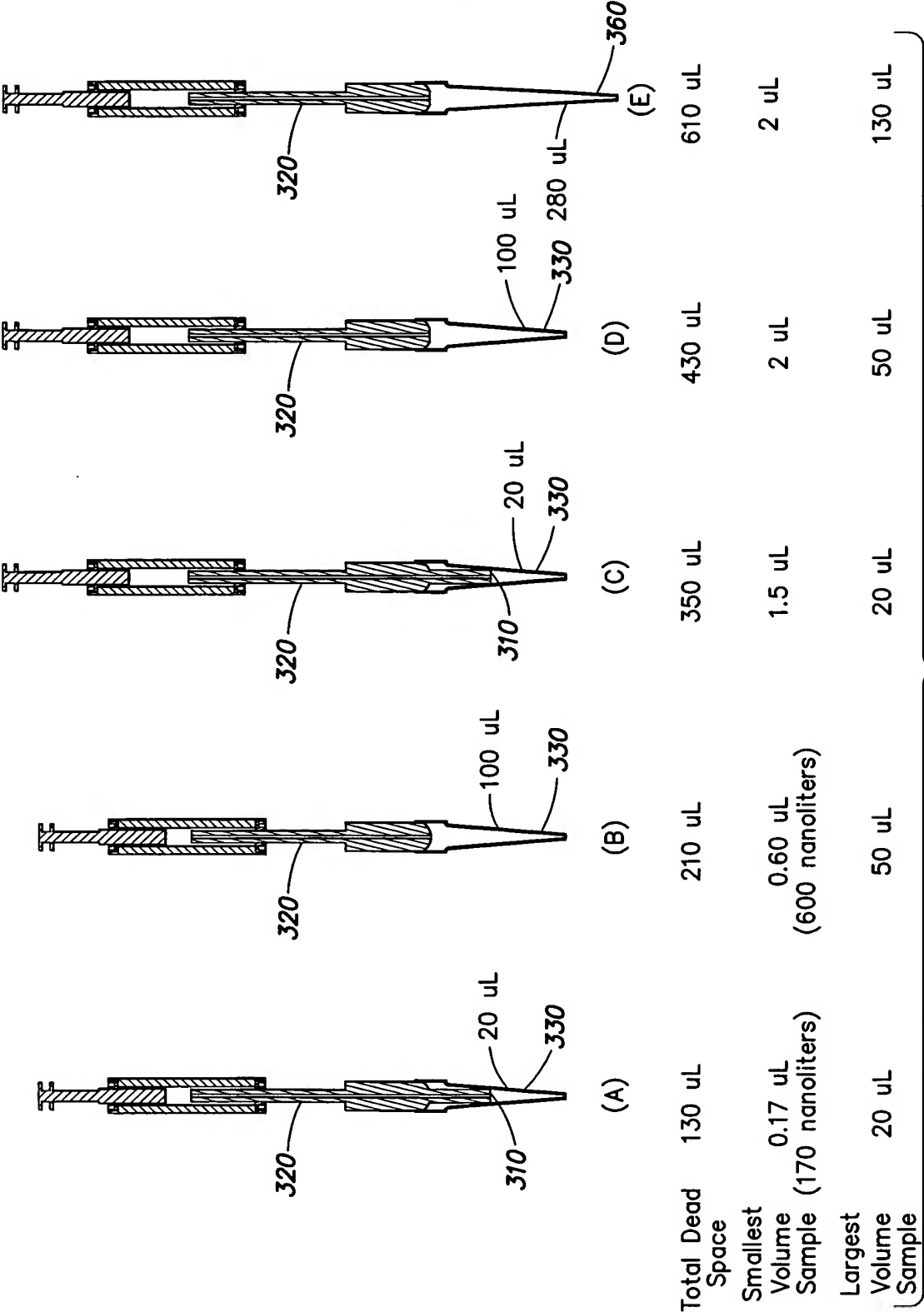


FIG. 6

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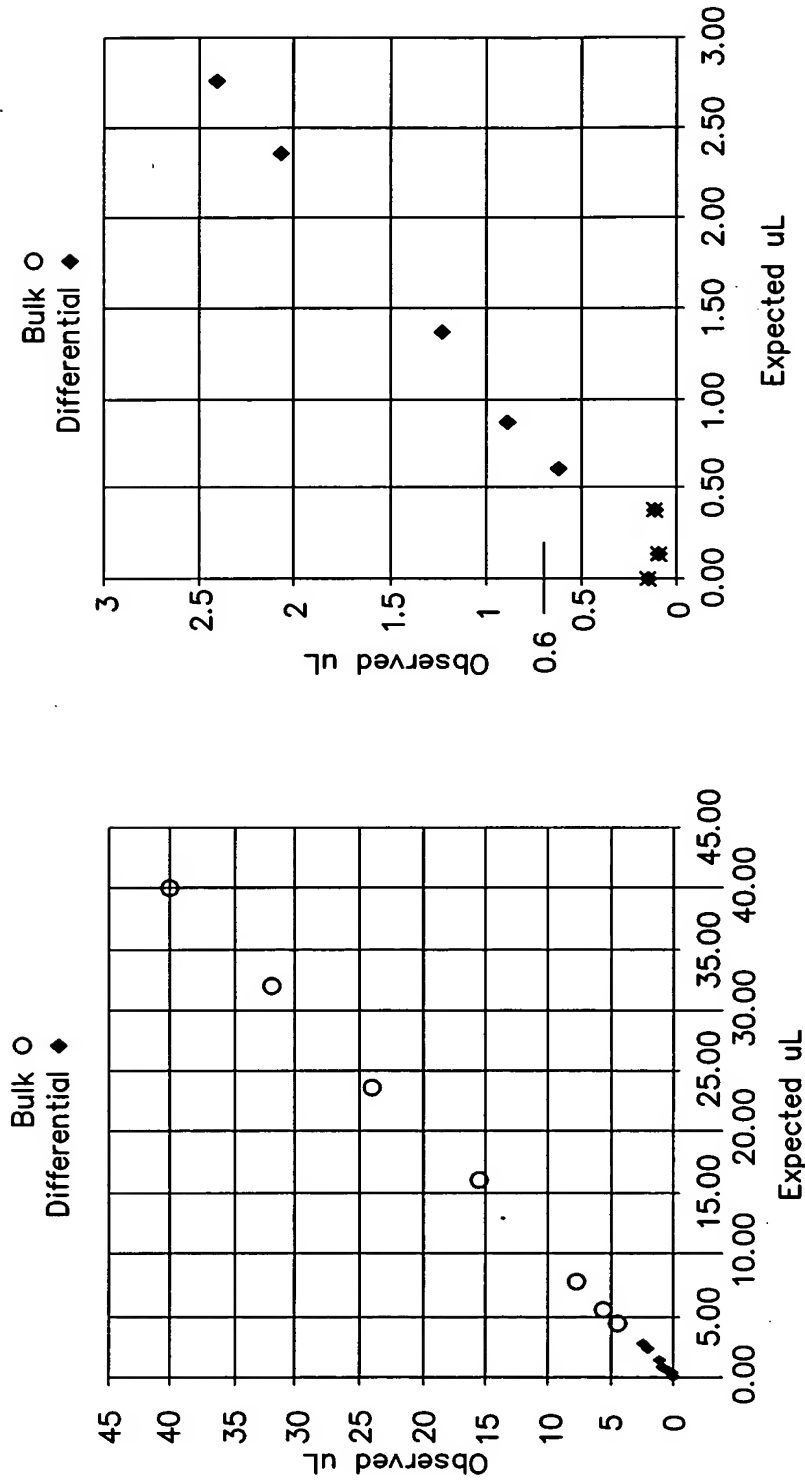


FIG. 7A

FIG. 7B

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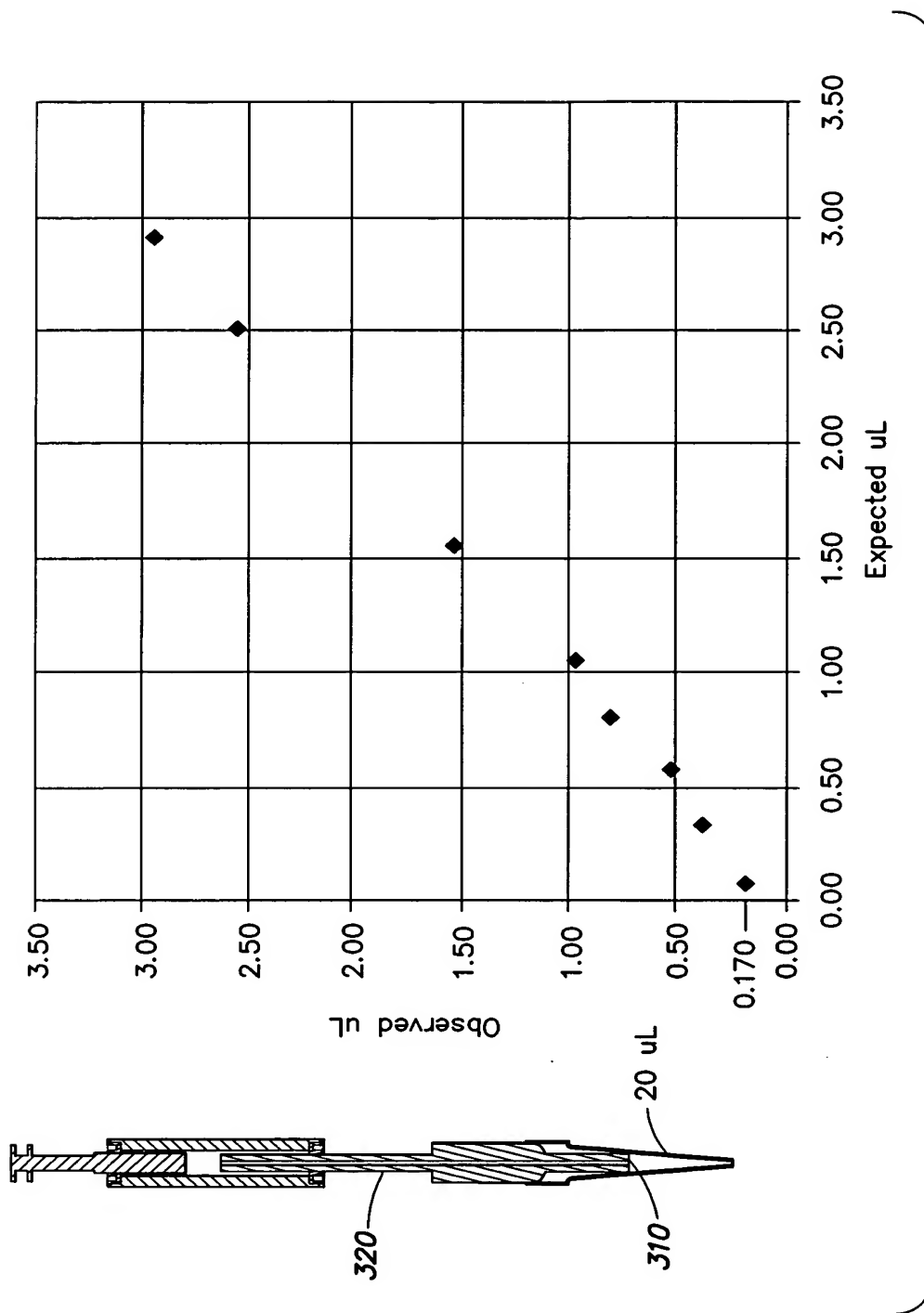


FIG. 8

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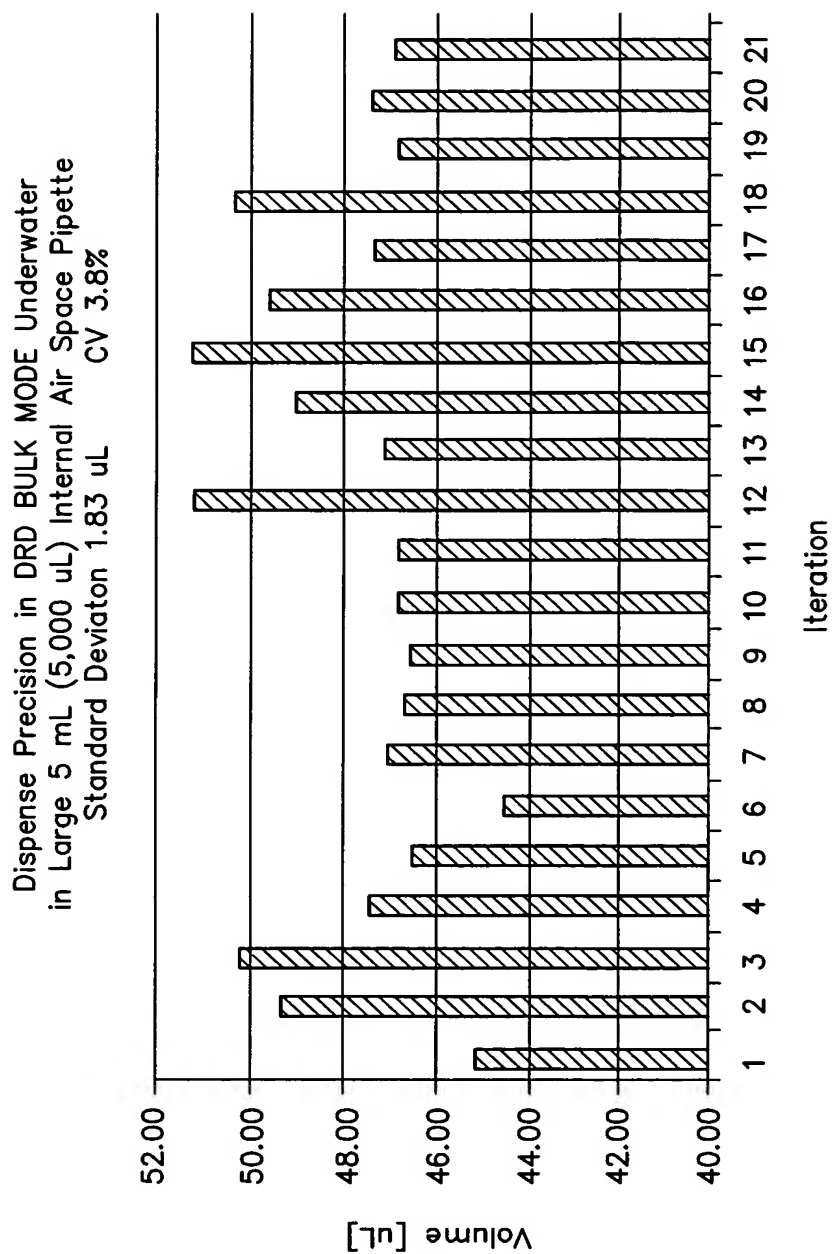


FIG. 9A

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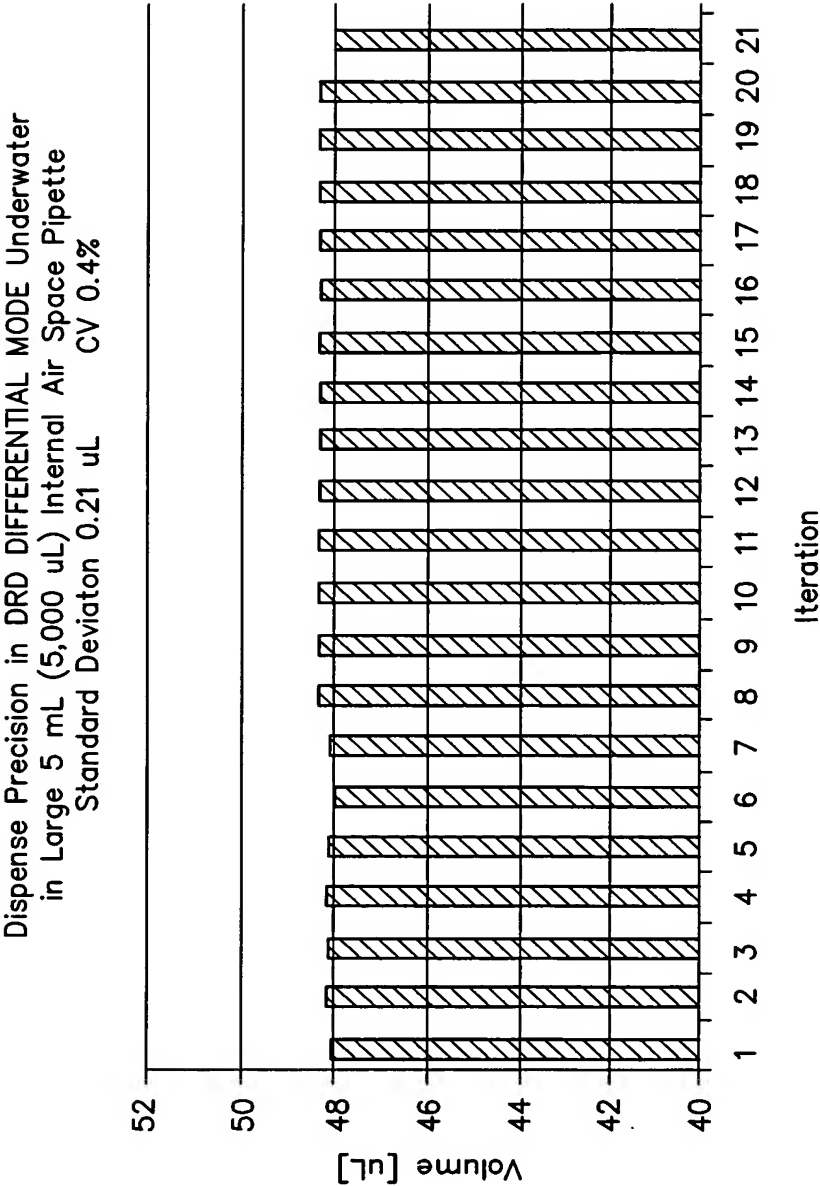


FIG. 9B

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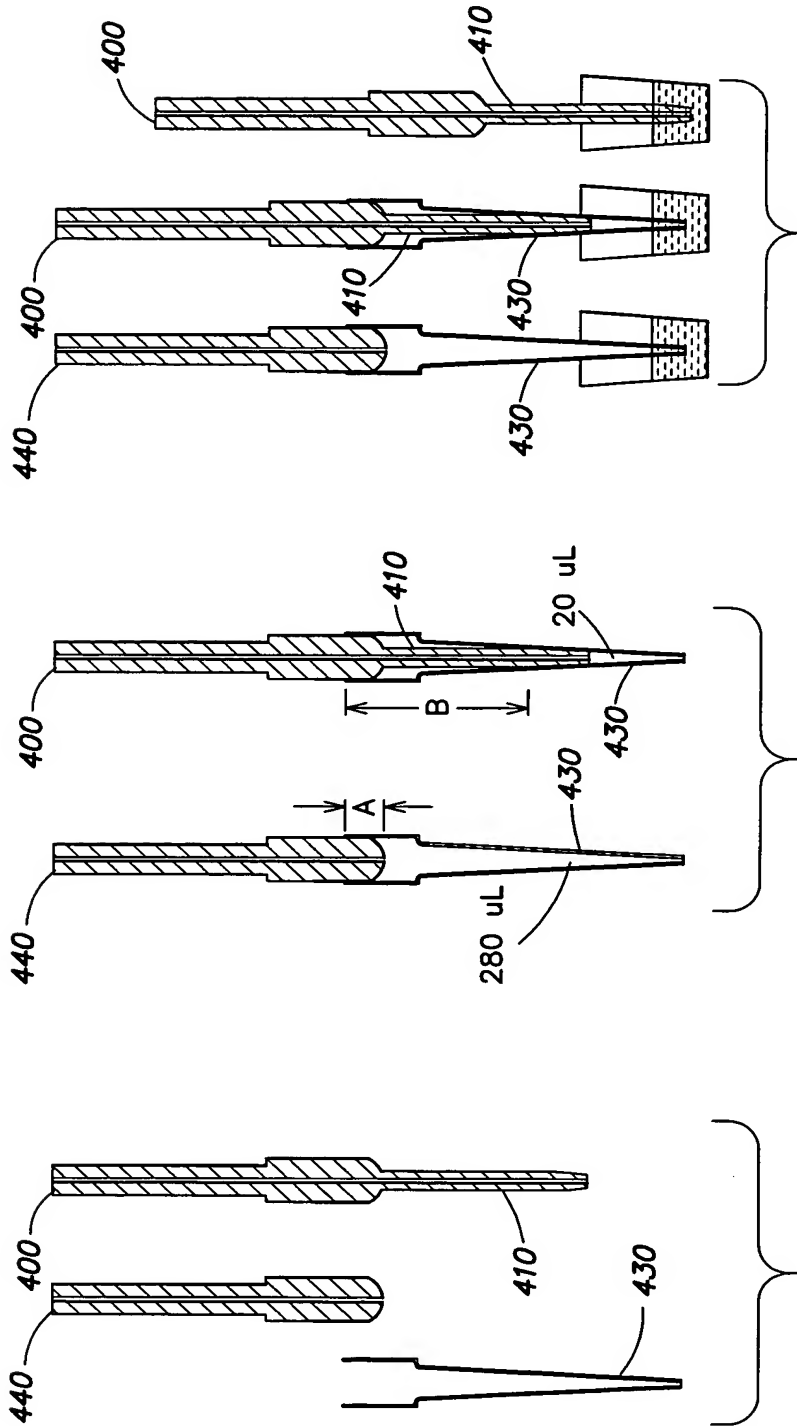


FIG. 10.3

FIG. 10.2

FIG. 10.1

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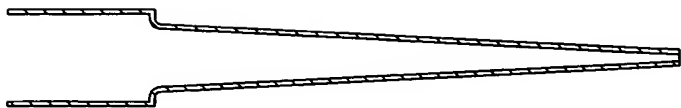


FIG. 11.1

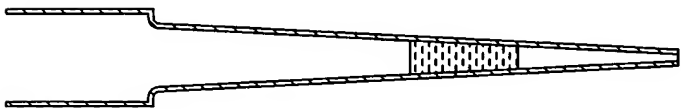


FIG. 11.2

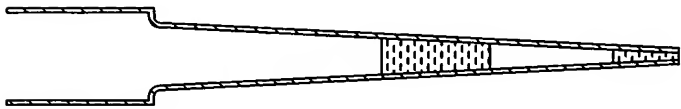


FIG. 11.3



FIG. 11.4

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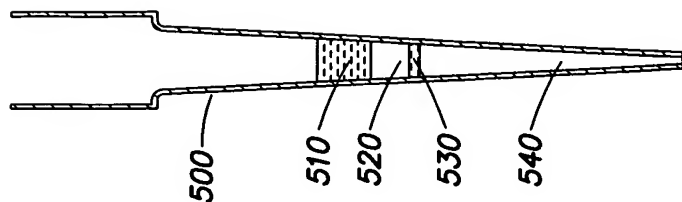


FIG. 12.1

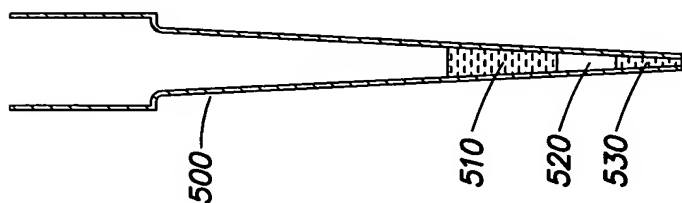


FIG. 12.2

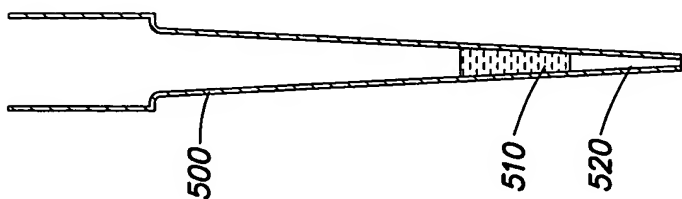


FIG. 12.3

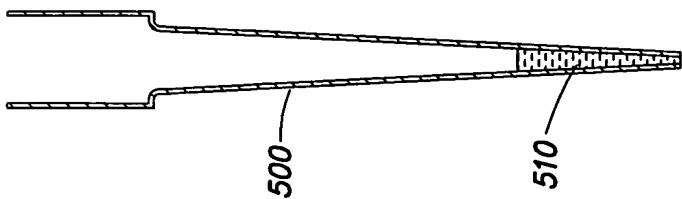


FIG. 12.4

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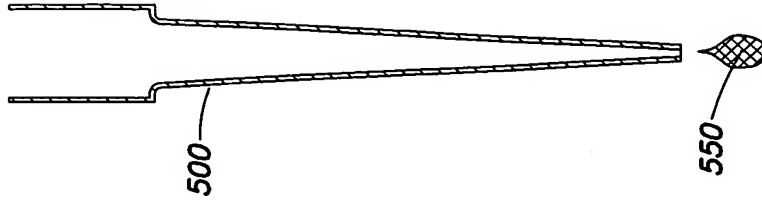


FIG. 12.8

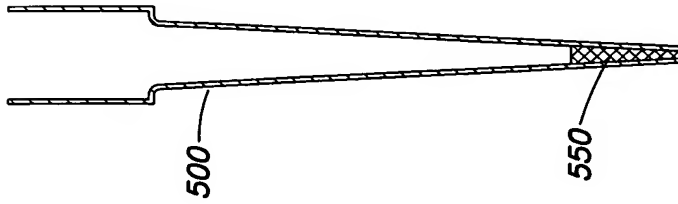


FIG. 12.7

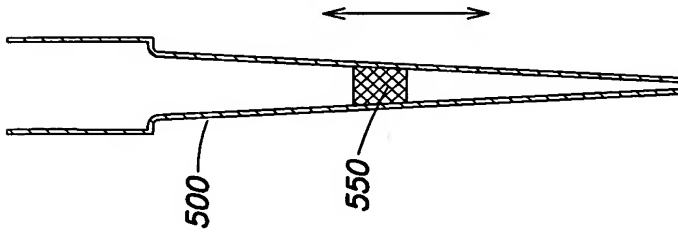


FIG. 12.6

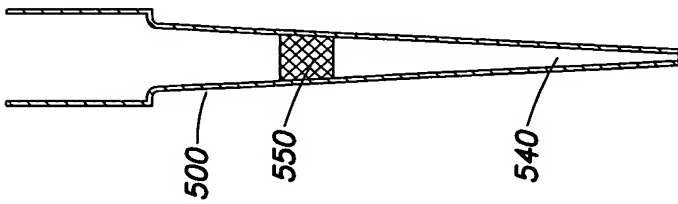


FIG. 12.5

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